

Natural Interface to External Environments

Natural interfaces to the PC environment and to Software AG's Office System Con-nect. You can transfer Natural objects to PC files and Con-nect cabinets, and you can transfer PC files and Con-nect documents to Natural object libraries (PDS, Natural, PANVALET, LIBRARIAN, etc.).

To perform these functions, Natural provides the EXPORT and IMPORT function commands.

EXPORT

You can issue the EXPORT command in any of the following ways:

- As a function command from any Natural screen, with parameters specifying the external environment and identifiers for the object to be transferred; if any parameter is missing, selection windows prompt you for valid items;
- As a command from an edit session with a Natural object, with a parameter specifying the destination; destination Con-nect is specified as CONNECT or CNT, destination PC is specified as PC;
- As a line command (EX) from a list of Natural objects; selection windows prompt you for destination and target identifiers.

IMPORT

The IMPORT command is a local command issued from an edit session with any Natural object that can be edited.

The following subsections illustrate some examples of using the Natural interface to the PC and Con-nect environments.

DOWNLOAD / UPLOAD

In addition to the EXPORT and IMPORT commands, which usually handle text only, the DOWNLOAD and UPLOAD commands also handle **binary** data. Currently they are available for Natural objects and sources as well as data areas and maps, views and PDS members.

All PC files created with the Natural DOWNLOAD command can be processed by the UPLOAD command as described in the section Command Reference.

Exporting a Natural Object to Con-nect

To export a Natural object (PDS member, Natural program, View, sequential dataset, SYSOUT file, workpool entry, library list) to Con-nect, send it to another user or both, enter the following command in the command line and press Enter:

```
EXPORT <object-name> <object-parameters>, TARGET=CNT <target-parameters>
```

Or, if you are in an Editor session, enter the following command in the command line and press Enter:

```
EXPORT CNT
```

A window opens as shown on page 63.

Example:

The command:

```
EX P MY.ONLY.SOURCE(MYMEM),TARGET=CNF NAME=MYDOC SEND=MYBOSS
```

stores the PDS member MYMEM from the library MY.ONLY.SOURCE as document MYDOC in Con-nect and sends a copy to the user MYBOSS.

Natural notifies you with a message of the successful export operation. If a new document is created, it can be maintained within Con-nect as any other Con-nect document (see the **Con-nect User Documentation**).

Exporting Part of an Object to Con-nect

To export only part of a Natural object, open an EDIT session with the object and mark the required block of data with two CC Editor line commands, then issue the command EXPORT CNF. The following window opens:

```
EDIT-NAT:NSPFHELP(LOGOFF)-Text->Report-Free-45K ----- Columns 001 072
COMMAND==> export cnt                                SCROLL==> CSR
***** ***** top of data *****
000010 &H Session Command: LOGOFF
000020 &U MAIN
000030 +-----Export document to CON-NECT-----+
CC0040 !                                           !
000050 ! Cabinet:          GHH_____ !
000060 ! Password:                !
000070 !                                           !
000080 ! Create document: _____ !
000090 ! and/or Send to: _____ !
000100 ! _____ !
000110 ! Description/Subject _____ !
000120 ! _____ !
000130 ! _____ !
000140 ! _____ !
000150 ! _____ !
000160 +-----+
CC0170 The LOGOFF command can be concatenated with any valid NATURAL command.
000180 Examples:
000190 &L
000200 #LOGOFF;FIN
000210 #LOGOFF IMM;FIN
```

You can store the object as a document in Con-nect, send it as a message to one or more Con-nect users, or both.

Meaning of the input fields:

Field	Keyword	Meaning
Cabinet	CABINET	Required. Name of the Con-nect cabinet in which the object is to be stored as a document.
Password	PASSWORD	Required, if Con-nect password is needed to access the cabinet.
Create document	NAME or DESTINATION	Document name under which the object is to be stored. Required for filing the Natural object as a Con-nect document. (Not required for the SEND function.)
and/or Send to	SEND	To send the Natural object as a message to Inbaskets of other Con-nect users, enter at least one recipient. You can specify up to four user IDs. (Not required when only storing object as document.)
Description/Subject		Optional description of object. Required for sending the Natural object as a message to other Con-nect users.

Note:

If you specify document name, up to four user IDs as well as the subject, the Natural object is **both** filed as a document in the specified cabinet **and** sent to the Inbasket of the specified users.

Having specified the Con-nect destination, press Enter. Natural notifies you with a message of the successful export operation. If a new document is created, it can be maintained within Con-nect as any other Con-nect document (see the **Con-nect User's Documentation**).

See also the description of the EXPORT command as described in the section Command Reference.

Importing a Con-nect Document

To import a Con-nect document into Natural, you can start an edit session with the Natural Editor for the required object type. When the Editor screen is displayed on your screen, enter the command:

IMPORT CNT

in the Editor direct command line and press Enter. This opens a window in which you must specify the Con-nect document to be transferred:

```

EDIT-PDS:MBE.COMN.SOURCE(DOCUMENT)-----columns-001-072-
  COMMAND==> import cnt                                SCROLL==> CSR
***** ***** top of data *****
//////
//////
//////
//////
//////
Cabinet      _____
Password     _____
Name         _____
Mark for Notes/Encl. _

//////
//////
//////
//////
//////
//////
//////
//////
//////
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help Split End  Suspe Rfind Rchan Up    Down Swap Left  Right Curso

```

Meaning of the input fields:

Field	Keyword	Meaning
Cabinet	CABINET	Name of the Con-nect cabinet from which the document is to be copied.
Password	PASSWORD	If required, Con-nect password to access the cabinet.
Name	NAME	Document name.
Mark for Notes/Encl.		Mark this field if the document is to be imported with cover notes and enclosures.

Specify the Con-nect document to be transferred in the window and press Enter.

If you are creating a new Natural object (your Editor screen is blank), the document is loaded into the data area of the Editor screen. If you wish to include the document in an existing object, Natural asks you to position the document with the message Import is pending. You must mark the line after which you wish to insert the document with the A line command, or the line before which you wish to insert the document with the B line command.

Any document transferred to Natural can be edited, stored and maintained as any other Natural object.

Using the Natural Interface to the PC Environment

If Entire Connection is installed at your site, you can use a PC to emulate a mainframe terminal. You can transfer files between the PC and Natural using the IMPORT and EXPORT function commands.

After logging on to Natural from the PC, you must issue the Natural terminal command

```
%+
```

from the Natural Main Menu. The terminal command %+ sets the Natural system variable *DEVICE to PC (see the **Entire Connection User's Documentation** for more information).

The following subsections describe how to export Natural objects and how to import PC files in more detail.

Exporting a Natural Object to the PC

To export (download) a Natural object (PDS member, Natural program, view, sequential dataset, SYSOUT file, workpool entry, library list) to the PC, enter the following command in the command line and press Enter:

```
EXPORT <object-name> <object-parameters>, TARGET=PC DESTINATION=<filename.ext>
```

If you omit the DESTINATION parameter, a window opens at the bottom of the screen, that prompts you to specify the name under which the object is to be stored on the PC. Enter a name for the new file and press Enter.

Note:

To download only part of a Natural object, open an EDIT session with the object and mark the required block of data with two CC Editor line commands, then issue the command EXPORT PC.

You are informed of the successful download operation with a message. You can check the result of your download operation by returning to MS-DOS and issuing the DIR command or the TYPE <filename> command.

To export Natural objects in binary format, Natural views or OS/390 load modules, use the DOWNLOAD command as described in Section Command Reference.

Examples:

- The command:

```
EX P MY.ONLY.SOURCE (MYMEM) , PC
```

opens a window in which you can enter the PC file name under which the PDS member MYMEM in library MY.ONLY.SOURCE is to be downloaded.

- The command:

```
EX P MY . ONLY . SOURCE ( MYMEM ) , TARGET=PC DESTINATION=MYFILE . NCD
```

downloads the PDS member MYMEM from library MY.ONLY.SOURCE to the PC and stores it in MYFILE.NCD without prompting.

See also the description of the EXPORT command in Section Command Reference.

Importing a PC File into Natural

To import (upload) a PC file into Natural, you must start an edit session with the Natural Editor for the required object type. (Do not forget to signal to Natural that you are working from a PC by entering the percent sign followed by the plus sign: %+).

When the Editor screen is displayed, enter the command:

```
IMPORT PC , NAME=<myfile.ncd>
```

in the Editor command line and press Enter. If the NAME parameter is omitted, a window opens in which you are prompted for the PC file name to be uploaded. Enter the file name in the window and press Enter.

If you are creating a new Natural object (your Editor screen is blank), the file is loaded into the data area of the Editor screen. If you wish to include the file into an existing object, Natural asks you to position the document with the message Import is pending. You must mark the line after which you wish to insert the document with an **A** line command, or the line before which you wish to insert the document with a **B** line command.

Any PC file transferred to Natural can be edited, stored and maintained as any other Natural object.

To import Natural objects in binary format, Natural Views or OS/390 load modules, use the UPLOAD command as described in the section Command Reference.